

# **Young Soil Doctor:**

**Student-Teacher-Scientist-community Collaboration Research  
on Sustainable Land Development Activities in Thailand**



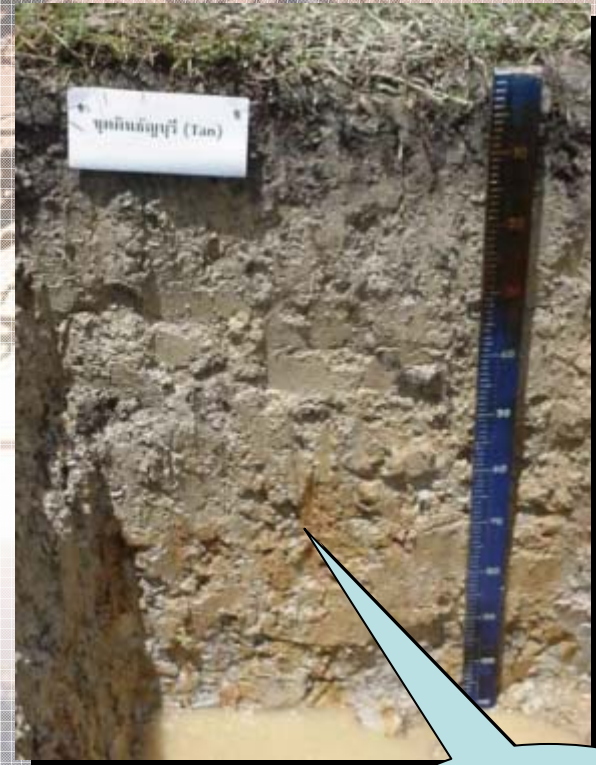
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# Acid soil



**Jarosite  
mottle**



GLOBE Thailand, IPST





# Organic soil





# Sandy soil





# Saline soil





# Soil Erosion





# His Majesty The King of Thailand's Concerns on Sustainable Land Development





# His Majesty The King of Thailand as a “Soil Science Teacher”





# Objectives of the project

- ☀ To encourage students to use GLOBE strategies and protocols to identify and solve local soil problems as “Young Soil Doctor” through Student-Teacher–Scientist– Community Collaboration Research
- ☀ To promote scientific attitude and skill including awareness, understanding, responsibilities, and behavior changes about natural resources and environment of the students and communities.





# Goal

- ☀ Young Soil Doctors with 100 researches from different parts of the country in three years (2006-2008)





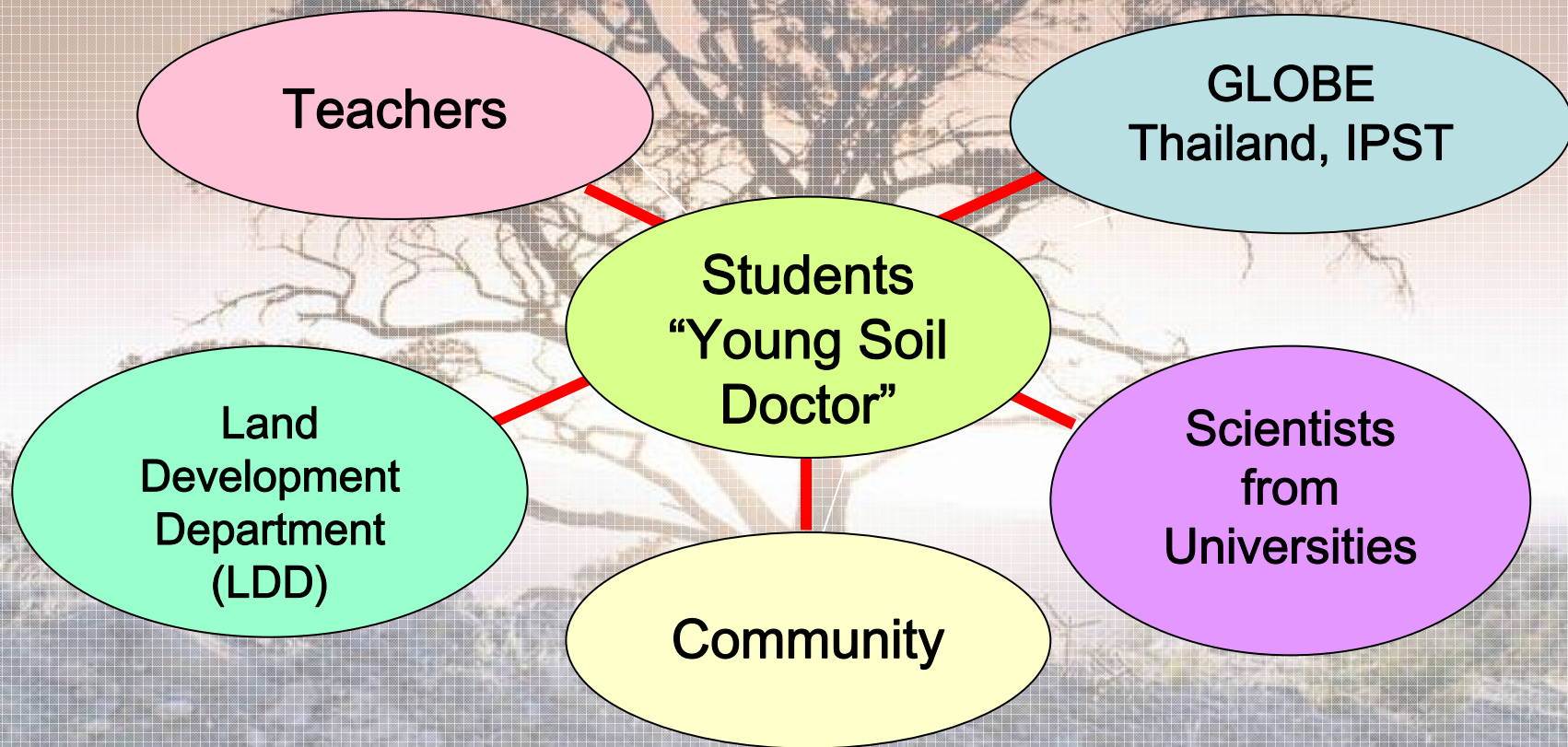
# Expected Outcomes

- ☀ In collaboration with teachers, soil scientists, and communities, student as “Young Soil Doctor” should be able to use inquiry, scientific process, higher order of thinking, and standardized measurement of soil and related protocols to identify and explain soil problems in their local communities and propose appropriate solution to solve those problems.
- ☀ Student should have the understanding and awareness of environmental issue concerned and participate with local community to conserve their communities.



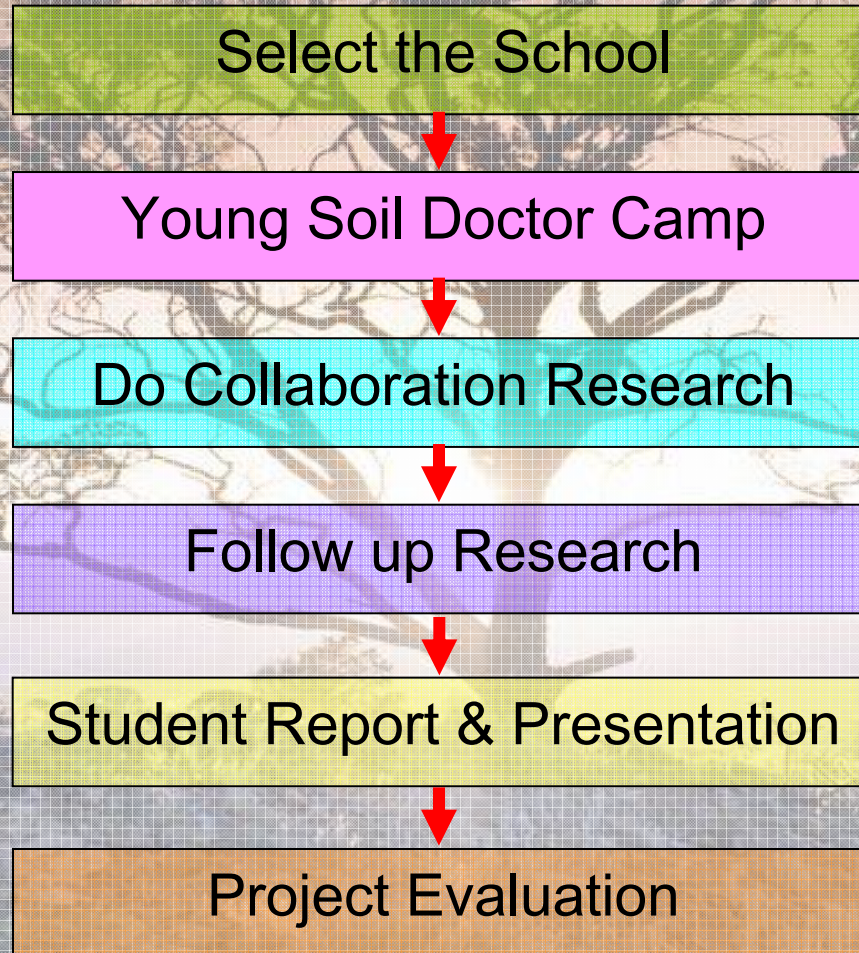


# Strategy





# Procedure





# Procedure

## Select the School





# Procedure

## Young Soil Doctor Camp





# Procedure

## Do Collaboration Research





# Procedure

## Follow up Research





# Procedure

## Student Report & Presentation





# Procedure

## Project Evaluation





# Past and Ongoing Implementation

- ☀ During the year 2005, There was the first YSD camp and a school visit.
- ☀ During the year 2006, IPST and 4 Regional GLOBE university partners meeting was held to introduce YSD and design the collaboration plan. After that IPST and LDD signed MOU of Collaboration in YSD project. There were 5 YSD camps in 4 parts of Thailand and 3 school visits.
- ☀ Present (2007), LDD supported 200 soil test kits for student research and GLOBE training. There was a network meeting including LDD, scientists from universities and IPST to revise the action plan and develop strategy for more effective project. There was a school visit.





# Conclusion

- ☀ The cooperation among teacher, scientist, and community to promote the student learning on soil resource (an excellent model to run student's research project)
- ☀ Developing students knowledge, skills, and scientific thinking
- ☀ Learning together among student-teacher-scientist-community and applying the result of study to solve their local problems
- ☀ Implementing YSD in schools and communities activities





# Key Findings

- ✿ The strong collaboration among teacher, scientist and community by consulting and advising will help the research to meet the target.
- ✿ The teacher is the key person to run the project besides the strong collaborations. The teacher role is the facilitator, supporting tools and knowledge and motivates students to do research.
- ✿ The supporting and funding will help schools to complete research on time.
- ✿ The school size is not the main key to a successful project. Although a big school usually has more effective teachers and more facilities, sometimes a small school in rural can complete the project because their environmental surrounding such as farming and agriculture provide opportunities to integrate the inquiry to real life application.
- ✿ The continuing follow up the project by teacher, scientist, and Land Development officer is also the important key to success.





# Thank you

